



ENTERED

PCT09

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/979,539

DATE: 03/21/2002
 TIME: 15:59:10

Input Set : A:\Nih395-1.app
 Output Set: N:\CRF3\03212002\I979539.raw

3 <110> APPLICANT: Pastan, Ira
 4 Chowdhury, Partha S.
 5 The Government of the United States of America
 6 as represented by the Secretary of the
 7 Department of Health and Human Services
 9 <120> TITLE OF INVENTION: Immunoconjugates Having High Binding Affinity
 11 <130> FILE REFERENCE: 015280-395100US
 13 <140> CURRENT APPLICATION NUMBER: US 09/979,539
 C--> 14 <141> CURRENT FILING DATE: 2002-02-26
 16 <150> PRIOR APPLICATION NUMBER: US 60/160,071
 17 <151> PRIOR FILING DATE: 1999-05-27
 19 <150> PRIOR APPLICATION NUMBER: WO PCT/US00/14829
 20 <151> PRIOR FILING DATE: 2000-05-26
 22 <160> NUMBER OF SEQ ID NOS: 12
 24 <170> SOFTWARE: PatentIn Ver. 2.1
 26 <210> SEQ ID NO: 1
 27 <211> LENGTH: 241
 28 <212> TYPE: PRT
 29 <213> ORGANISM: Artificial Sequence
 31 <220> FEATURE:
 32 <223> OTHER INFORMATION: Description of Artificial Sequence:SS single chain
 33 Fv antibody (SS scFv)
 35 <400> SEQUENCE: 1
 36 Met Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Glu Lys Pro Gly
 37 1 5 10 15
 39 Ala Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Gly
 40 20 25 30
 42 Tyr Thr Met Asn Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp
 43 35 40 45
 45 Ile Gly Leu Ile Thr Pro Tyr Asn Gly Ala Ser Ser Tyr Asn Gln Lys
 46 50 55 60
 48 Phe Arg Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala
 49 65 70 75 80
 51 Tyr Met Asp Leu Leu Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe
 52 85 90 95
 54 Cys Ala Arg Gly Gly Tyr Asp Gly Arg Gly Phe Asp Tyr Trp Gly Gln
 55 100 105 110
 57 Gly Thr Thr Val Thr Val Ser Ser Gly Val Gly Gly Ser Gly Gly Gly
 58 115 120 125
 60 Gly Ser Gly Gly Gly Gly Ser Asp Ile Glu Leu Thr Gln Ser Pro Ala
 61 130 135 140
 63 Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Ser Ala
 64 145 150 155 160

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66 Ser Ser Ser Val Ser Tyr Met His Trp Tyr Gln Gln Lys Ser Gly Thr
67           165           170           175
69 Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Leu Ala Ser Gly Val
70           180           185           190
72 Pro Gly Arg Phe Ser Gly Ser Gly Ser Gly Asn Ser Tyr Ser Leu Thr
73           195           200           205
75 Ile Ser Ser Val Glu Ala Glu Asp Asp Ala Thr Tyr Tyr Cys Gln Gln
76           210           215           220
78 Trp Ser Gly Tyr Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Ile
79 225           230           235           240
81 Lys
84 <210> SEQ ID NO: 2
85 <211> LENGTH: 15
86 <212> TYPE: PRT
87 <213> ORGANISM: Artificial Sequence
89 <220> FEATURE:
90 <223> OTHER INFORMATION: Description of Artificial Sequence:linker peptide
92 <400> SEQUENCE: 2
93 Gly Val Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
94 1           5           10           15
97 <210> SEQ ID NO: 3
98 <211> LENGTH: 27
99 <212> TYPE: DNA
100 <213> ORGANISM: Artificial Sequence
102 <220> FEATURE:
103 <223> OTHER INFORMATION: Description of Artificial Sequence:nucleotide
104     sequence encoding amino acids in CDR3 of the
105     variable light chain (V-L) of SS scFv
107 <400> SEQUENCE: 3
108 cagcagtgga gtggttacct tctcacg                27
111 <210> SEQ ID NO: 4
112 <211> LENGTH: 9
113 <212> TYPE: PRT
114 <213> ORGANISM: Artificial Sequence
116 <220> FEATURE:
117 <223> OTHER INFORMATION: Description of Artificial Sequence:amino acid
118     sequence of CDR3 of the variable light chain (V-L)
119     of SS scFv
121 <400> SEQUENCE: 4
122 Gln Gln Trp Ser Gly Tyr Pro Leu Thr
123 1           5
126 <210> SEQ ID NO: 5
127 <211> LENGTH: 4
128 <212> TYPE: PRT
129 <213> ORGANISM: Artificial Sequence
131 <220> FEATURE:
132 <223> OTHER INFORMATION: Description of Artificial Sequence:peptide linker
134 <400> SEQUENCE: 5
135 Gly Gly Gly Ser

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136 1
139 <210> SEQ ID NO: 6
140 <211> LENGTH: 4
141 <212> TYPE: PRT
142 <213> ORGANISM: Artificial Sequence
144 <220> FEATURE:
145 <223> OTHER INFORMATION: Description of Artificial Sequence:sequence
146      addition at carboxyl terminus to maintain ability
147      to translocate into the cytosol
149 <400> SEQUENCE: 6
150 Lys Asp Glu Leu
151 1
154 <210> SEQ ID NO: 7
155 <211> LENGTH: 4
156 <212> TYPE: PRT
157 <213> ORGANISM: Artificial Sequence
159 <220> FEATURE:
160 <223> OTHER INFORMATION: Description of Artificial Sequence:sequence
161      addition at carboxyl terminus to maintain ability
162      to translocate into the cytosol
164 <400> SEQUENCE: 7
165 Arg Glu Asp Leu
166 1
169 <210> SEQ ID NO: 8
170 <211> LENGTH: 5
171 <212> TYPE: PRT
172 <213> ORGANISM: Artificial Sequence
174 <220> FEATURE:
175 <223> OTHER INFORMATION: Description of Artificial Sequence:PE38 C-terminal
176      native sequence residues 609-613
178 <400> SEQUENCE: 8
179 Arg Glu Asp Leu Lys
180 1 5
183 <210> SEQ ID NO: 9
184 <211> LENGTH: 50
185 <212> TYPE: DNA
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: Description of Artificial Sequence:degenerate
190      oligo SS VL 89/93/94
192 <220> FEATURE:
193 <221> NAME/KEY: modified_base
194 <222> LOCATION: (1)..(50)
195 <223> OTHER INFORMATION: n = g, a, c or t
197 <400> SEQUENCE: 9
W--> 198 gcaccgaacg tgagaggsnn snnactccac tgsnngcagt aataagttgc 50
201 <210> SEQ ID NO: 10
202 <211> LENGTH: 46
203 <212> TYPE: DNA

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204 <213> ORGANISM: Artificial Sequence
206 <220> FEATURE:
207 <223> OTHER INFORMATION: Description of Artificial Sequence:degenerate
208     oligo SS VL Mut 92-94
210 <220> FEATURE:
211 <221> NAME/KEY: modified_base
212 <222> LOCATION: (1)..(46)
213 <223> OTHER INFORMATION: n = g, a, c or t
215 <400> SEQUENCE: 10
W--> 216 gcaccgaacg tgagaggsnn snnsnnccac tgctggcagt aataag          46
219 <210> SEQ ID NO: 11
220 <211> LENGTH: 50
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: Description of Artificial Sequence:degenerate
226     oligo SS VL Mut 89-91
228 <220> FEATURE:
229 <221> NAME/KEY: modified_base
230 <222> LOCATION: (1)..(50)
231 <223> OTHER INFORMATION: n = g, a, c or t
233 <400> SEQUENCE: 11
W--> 234 gcaccgaacg tgagagggtta accactsnns nnsnngcagt aataagttgc      50
237 <210> SEQ ID NO: 12
238 <211> LENGTH: 47
239 <212> TYPE: DNA
240 <213> ORGANISM: Artificial Sequence
242 <220> FEATURE:
243 <223> OTHER INFORMATION: Description of Artificial Sequence:degenerate
244     oligo SS VL Mut 95-97
246 <220> FEATURE:
247 <221> NAME/KEY: modified_base
248 <222> LOCATION: (1)..(47)
249 <223> OTHER INFORMATION: n = g, a, c or t
251 <400> SEQUENCE: 12
W--> 252 ctttgtccca gcaccgaasn nsnnsnngta accactccac tgctgcg          47

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/979,539

DATE: 03/21/2002

TIME: 15:59:11

Input Set : A:\Nih395-1.app

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L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9

L:216 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10

L:234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11

L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12